

# The World of Work

## Emerging Occupations

The long-term shift from goods-producing to service-providing employment is expected to continue. Occupations for the future will center around the information, energy, high-tech, healthcare, and financial industries. They promise to create a new occupational structure and vocabulary relating to computers, robotics, biotechnology, lasers, and fiber optics. As these fields begin to apply new technologies to developing innovations, they in turn will generate other new occupations. While most new occupations are not major growth fields, and because they do not initially generate a large number of new jobs, they will present individuals with fascinating new opportunities to become leaders in pioneering fields and industries.

Expansion of service-providing industries is expected to continue, creating demand for many occupations. However, projected job growth varies among major occupational groups.

**Professional and related occupations.** Professional and related occupations will grow the fastest and add more new jobs than any other major occupational group—a 21.2 percent increase. About three-quarters of the job growth will come from three groups of professional occupations—computer and mathematical occupations; healthcare practitioners and technical occupations; and education, training, and library occupations.

**Service occupations.** Food preparation and serving-related occupations are expected to add the most jobs among the service occupations; however, healthcare

support occupations are growing the fastest, adding 1.2 million new jobs—a 19 percent increase.

**Management, business, and financial occupations.**

An increase of 14.4 percent increase will be seen for these occupations. Among managers, the numbers of preschool and childcare center/program education administrators and of computer and information systems managers will grow the fastest. General and operations managers will add the most new jobs.

**Construction and extraction occupations.**

Employment of these workers is expected to grow 12 percent. Construction trades and related workers will account for more than three-fourths of these new jobs.



**Installation, maintenance, and repair occupations.**

These occupations will grow by 11.4 percent. Automotive service technicians and mechanics and general maintenance and repair workers will account for half of all new installation, maintenance, and repair jobs.

**Transportation and material moving occupations.**

The number of workers should grow 11.1 percent. Among transportation occupations, motor vehicle operators will add the most jobs. Material movers will grow 8.3 percent.

**Sales and related occupations.** These occupations are expected to add 1.5 million new jobs by 2014, growing by 9.6 percent. The majority of these jobs will be among retail salespersons and cashiers.

**Office and administrative support occupations.**

Employment in these occupations is expected to increase by 5.8 percent. Customer service representatives will add the most new jobs. Desktop publishers will be among the fastest-growing occupations, increasing by 23.2 percent over the decade.

### Some emerging occupations are:

Acute Care Nurses	Manufacturing Engineers and Technologists
Advanced Practice Psychiatric Nurses	Mechanical Engineering Technologists
Allergists and Immunologists	Microsystems Engineers
Anesthesiologist Assistants	Naturopathic Physicians
Baristas	Neuropsychologists
Biochemical Engineers	Network Designers
Biostatisticians	Nuclear Medicine Physicians
Clinical Data Specialists	Nurse Anesthetists
Clinical Nurse Specialists	Nurse Practitioners
Clinical Research Coordinators	Online Merchants
Computer Systems Engineers and Architects	Ophthalmic Medical Technologists and Technicians
Critical Care Nurses	Orthoptists
Electrical Engineering Technologists	Patient Representatives
Electronics Engineering Technologists	Physical Medicine and Rehabilitation Physicians
Endoscopy Technicians	Precision Agriculture Technicians
Energy Engineers	Quality Control Analysts
Financial Quantitative Analysts	Regulatory Affairs Specialists
Geodetic Surveyors	Remote Sensing Scientists and Technologists
Geospatial Information Scientists and Technologists	Renewable Energy Technicians
Geospatial Information Systems Technicians	Risk Management Specialists
Hearing Instrument Specialists	Robotics Engineers and Technicians
Histotechnologists and Histologic Technicians	Security Management Specialists
Hospitalists	Spa Managers
Industrial Engineering Technologists	Software Quality Assurance Engineers and Testers
Informatics Nurse Specialists	Sports Medicine Physicians
Investment Fund Managers	Supply Chain Managers
Logistics Analysts	Transportation Engineers and Planners
Loss Prevention Specialists	Validation Engineers
Low Vision Therapists	Web Administrators
Managers of Quality Control Systems	Web Developers

## The Evolving Work World

As job patterns change and become more irregular, workers are experiencing a greater number of transitions throughout their working lives. One worker in three changes jobs every five years. About nine percent of employees change employer every year. Technological developments mean that they must be able to adapt to new ways of working, update their skills, and take part in lifelong learning. More and more, workers also need to be prepared to move to another town, region, or state to enjoy better access to job opportunities.



**As tools of the new economy, the Internet and the World Wide Web are changing the way people educate themselves, plan careers, and search for work.** Information on job openings, company profiles, job-search techniques, résumé postings, education and training programs and courses, distance learning, financial aid, and career planning are all available on the Internet at sites sponsored by private and public sectors.

**While the current new economy is an information-based economy, a biology-based economy grounded in physics, chemistry, and engineering is emerging.**

Careers requiring extensive knowledge of the biological sciences, already found in the agricultural, food, health care, and pharmaceutical industries, will grow throughout the next new economy.

**Online learning is becoming increasingly popular, but with some cautions.** Learning portals offer flexibility, access, diverse work groups, just-in-time training, and convenience. However, e-learning raises questions, such as: How do you identify exactly what piece of information or training you need when you need it? Often, those seeking training or information do not know what it is that they need to know.

**Education requirements are increasing.** The number of industries that hire many college graduates is increasing. The percent of workers employed in industries that require a high level of education is rising. Occupations that require a bachelor's degree will increase from 12 percent of total employment to 13 percent over the next 10 years.

**Switching jobs and careers has become standard, and it is easier to do than ever.** The Bureau of Labor Statistics says the results of their 20-year longitudinal study show that on average the workers studied held 9.6 jobs from age 18 to age 36. From age 33 to 36, the average number of jobs held was two.

**Jobs in the service-producing sector continue to increase.** Four times as many people work in industries that provide some type of service, as do those who work in industries, which provide some type of goods.

**The workforce is more diverse.** Women and minorities now represent larger shares of the working population, as their participation rates increase. About 46 percent of all workers in the United States are women, and about 16 percent are minorities, according to Bureau of Labor Statistics data.

**Occupations with the largest job growth from 2000 to 2010 have a range of education and training requirements, but occupations that require short-term**

**on-the-job training far outnumber those which require post-secondary education.** Some examples are food preparation and service workers, cashiers, waiters, retail salespersons, office clerks, and nursing aides. Although entry to most of these jobs does not require a high level of education, workers in these jobs must be able to read and understand directions, be proficient in basic mathematics, speak and think clearly, and adapt to changes in job duties.



**People without any post-secondary education who are looking for traditional blue-collar jobs have fewer job choices.** As skill levels rise and machinery replaces workers, there are fewer of the high-paying, semi-skilled, but often-dangerous, industrial jobs. These people must be willing to consider other options.

**Jobs are changing!** Some futurists think work in the future will not be structured around occupations at all. Others think advanced software systems and robots will eliminate the need for many types of workers. Just as the jobs of many blue-collar workers were eliminated at the emergence of the new economy, white-collar workers can expect to be affected by recent technological advances.





**There are many types of work arrangements.**

Most workers are employees of the organization in which they carry out their assignments. Others are in some type of alternate work arrangement, such as part-time or temporary work, freelancing, or flex time. The type of jobs that use alternatives to traditional work arrangements include independent contractors, consultants, on-call workers, and workers who are on the payrolls of outsourcing contract firms.

**Technological boundaries that once made industries easily identifiable are disappearing.** Many technologies and work processes that began in a specific industry are now used in other industries. Knowledgeable people can often search for work in many different industries.

**Personal needs of some employees are receiving more attention as benefits are customized.** Some firms provide such services as childcare, counseling services for employees, and wellness/physical fitness programs. Many employees have the opportunity to select from a menu of benefits.

**The benefits gap is wide.** Some low-wage workers have a very limited number of benefits or none at all. This situation contrasts greatly with the benefits offered to other workers.

**Employment is more secure for employees with skills that are transferable to new work situations than for workers who have a limited number of transferable skills.** The generalist with strong work skills and the capacity to learn new ones can increase the likelihood of long-term employment opportunities.

**Work invades the home and increases at the office, according to a Stanford University study.** A preliminary report says workers have reported an increase in their work at home and no decrease in their hours at the office.

**Although there is a labor shortage, some workers face challenges** such as job insecurity, unemployment, underemployment, balancing work and family roles, discrimination and harassment, competing for a job or career advancement in a highly competitive environment, and adjusting to boring, low-paying, dead-end jobs.

**Some workers will have to retrain for other occupations, relocate, or leave the workforce** because of downsizing in their industries due to technological developments, economic changes, foreign competition, or environmental concerns.

**Today's jobs require a broader set of skills as workers navigate in an economy more dependent of brains than brawn.** Thinking skills and people skills are more important. Motor skills are less important. The basic skills of reading, writing, and math are crucial, but not enough to ensure workplace success. Workers now must define and solve problems; quickly find and assimilate relevant data; reorganize information; discuss findings; work collaboratively with others to find solutions; and understand the social, organizational, and technological systems being used in their workplace.



# Workers Must be Adaptable



***As employers and jobs change, workers must be able to adapt to new conditions.***

Today's workplace is a place of constant and rapid change. Though technology is the major driver of such change, it is not the only one. Constant change requires flexibility and adaptability, particularly in the face of cross-training, the trend toward temporary work, and the competition-driven need for non-traditional work hours in service-oriented occupations.

Almost fifteen years ago, the Conference on the Future of the American Workplace meeting in Chicago concluded, "Growing foreign competition, rapidly changing technology, and shifting consumer preferences are radically altering the rules for competing in the global marketplace." The marketplace is merciless, putting limits on how generous or protective an employer can be. The ability of a company to compete relies on the ability of its workers. This means that the workers need to be creative and have ingenuity and problem-solving skills. Workers must have critical traits for lifestyles above poverty: basic life skills like punctuality, grooming, a positive attitude, independence and initiative, and a strong work ethic. They must not be afraid of change and have a willingness to continue learning.

Organizations are flattening out, shedding layers of management. This allows for faster decision-making. Smaller-scale, decentralized units will be seen more often. The thought is that smaller units can better adapt to high-velocity change. There will be the need for more part-time or contract workers.

# Planning in the New Economy

***The new economy requires new strategies for career planning.***

Don't stop thinking about tomorrow! Who you are tomorrow will be determined by what you do today. What you do today depends upon your view of tomorrow. Your view of tomorrow depends upon your personality, your life experiences, your understanding of the world around you, and your responses to it. A key fact of the world around you is that a new economy is emerging, unevenly, around the world. We are a world in transition.

Many terms are used to describe the new economy, including knowledge economy, information economy, digital economy, global economy, e-economy, Internet economy, office economy, churn economy, experience economy, entrepreneurial economy, high-tech and soft-touch economy. But what is it? What difference does it make to you at your stage of career development?

Each of the terms above captures some features of the new economy. For example, more people now work in offices than any place else. The economies of most nations are more global than ever, with a greater flow of money, goods, ideas, services, and workers across country borders. The computer, telecommunications, and the Internet are dominant, making for a digital economy.

The term "new economy" is a shorthand way of saying that the types of industries and occupations in the economy and their relative importance have changed. The progress of the information technology revolution is rapidly spreading throughout the economy. Globalization and new methods of economic competition are apparent. The structure of the economy has changed.

The way the economy functions and the rules by which it operates have changed significantly in recent years. The new economy is constantly changing. Jobs are being created and destroyed at a rapid rate. Firms may grow rapidly and go out of business just as fast. Many workers, job seekers, and their families have spent

many years dealing with wage stagnation and wage inequality.

The new economy is about new industries, advance technologies, new ways of organizing work, new skills and lifestyles, great opportunities, global competition for jobs and workers, and the movement of jobs around the world. Depending on your age, the new economy may be the only economy you have ever known, or it may be the one to which you are adapting.

Unlike the “old economy,” the structure of the new economy is not primarily industrial. Its characteristics are less national, stable, hierarchical, and bureaucratic than the old economy. Instead, industries and occupations where services, ideas, innovation, speed, global reach, and new technologies predominate are particularly strong.

Risk, as in starting a new business, or changing careers; constant change, as in the convergence of once-discrete industries and products and as in the obsolescence of products and some once-accepted tenets of science-based knowledge; and uncertainty, such as not knowing if a new technology will work as predicted, are common. Creativity and diversity are valued. Work teams and learning networks are the newer modes of operating in 21<sup>st</sup>-century firms. Each of these features has some impact upon successful career planning.

As the economy changes and job security declines, career planning is an individual responsibility and a lifelong process. Planning once for life, mastering a set of relatively narrow skills, expecting employers to provide an internal career ladder, and believing you have finished your education do not work in the new economy.

What matters in the new economy is the ability to add value and to sell that value. Knowing how to do something very well (having skills and competencies) in an area in demand in the workplace will work. Being able to use several skill sets at once is valued. Having skills that can be transferred is valued.

Everybody needs an action plan to reach each career destination. Like a road map, a plan of action is written and detailed. Using it means having a destination (a goal) in mind, tools and resources to use, and the knowledge and skills to use them.

In the new economy, knowledge of labor market information (the world of work)—what it is and where to find it—is as important as self-knowledge. As knowledge and processes change more rapidly than ever, life-long learning, strong career decision-making skills, having an entrepreneurial attitude toward your career, and flexible career planning are winning strategies for life in the new economy.





# Is Entrepreneurship for You?

The concept of **entrepreneurship** has a wide range of meanings. On the one extreme an **entrepreneur** is a person of very high aptitude who pioneers change, possessing characteristics found in only a very small fraction of the population. On the other extreme of definitions, anyone who wants to work for himself or herself is considered to be an entrepreneur.

The word *entrepreneur* originates from the French word, *entreprendre*, which means “to undertake.” In a business context, it means to start a business. The *Merriam-Webster Dictionary* presents the definition of an entrepreneur as one who organizes, manages, and assumes the risks of a business or enterprise.

An entrepreneur is a person who has decided to take control of his future and become self-employed—whether by creating his own unique business or working as a member of a “team,” as in multi-level marketing.

## Entrepreneurs:

- ★ Are careful about money. They always know how much money they have, and they know the value and cost of things so they recognize a real bargain. Most entrepreneurs earned money when they were teenagers—babysitting, mowing lawns, delivering newspapers, sacking groceries, etc.
- ★ Are competitive by nature. Many were active in sports and other competitions in high school and college. Others were competitive in wanting to make good grades, earn the respect of their parents and teachers, and achieve goals.
- ★ Believe in the old adage, “the early bird gets the worm.”
- ★ Are risk-takers who trust their hunches and act on them.
- ★ Have a “head for business.” They are always thinking of new ideas and new ways to make money or increase their business and are not afraid to put these ideas to use.



- ★ Are usually loners rather than joiners. They prefer a solitary work environment.
- ★ Are usually honorable people who do business based on a handshake or a promise.
- ★ Set aside time for leisure activities and family.
- ★ Don't retire. They may sell or change their business, thinking they will retire, but always jump back in with a new project.
- ★ Are professional. When they are working, they don't let outside influences distract them.
- ★ Are people who have high energy, feel self-confident, set long-term goals, and view money and financial security as a measure of accomplishment and piece of mind.
- ★ Compete with themselves and believe that success or failure lies within their personal control or influence. They do not see nonsuccesses as failures but as learning experiences.

Most of all, entrepreneurs never give up and never quit striving for success.

If you fit most of these criteria, you have what it takes to be an entrepreneur. Success comes mainly from educating yourself and—A LOT OF HARD WORK!

One of the first steps in starting a business is to develop a business plan of goals and objectives. The soundness of your business plan will depend a great deal on your personal knowledge, experience, and ideas. Developing a good, flexible business plan will often determine whether your business will succeed or fail.



Consider the following as you decide whether entrepreneurship is for you:

### **Cautions**

1. Always put schoolwork first. Young entrepreneurs need a solid education.
2. To help you with your success, check out legal and tax requirements before starting a business venture. Experienced entrepreneurs can help you.
3. Running a profitable business can take a lot of time. Analyze your time priorities.
4. Making a profit is very rewarding, but never guaranteed.

### **Benefits**

1. Being an entrepreneur allows you to “be in charge,” use your creativity, and do work that you truly enjoy while earning money.
2. It can teach you essential work skills, enhance your résumé, and let you explore career options.
3. It can prepare you for an entrepreneurial career.
4. It can provide freedom and choices that allow you to set your own goals and limits.

### **Misconceptions**

1. Successful entrepreneurship needs only a great idea.
2. Entrepreneurship is easy.
3. Entrepreneurship is a risky gamble.
4. Entrepreneurship is found only in small businesses.
5. Entrepreneurship ventures and small businesses are the same thing.

### **Rewards**

1. High degree of independence—freedom from constraints
2. Get to use a variety of skills and talents
3. Freedom to make decisions
4. Accountable only to yourself
5. Opportunity to tackle challenges
6. Feeling of achievement and pride
7. Potential for greater financial rewards

### **Challenges**

1. Must be comfortable with change and uncertainty
2. Must make a bewildering number of decisions
3. May face tough economic choices
4. Must be comfortable with taking risks
5. Need many different skills and talents
6. Must be comfortable with the potential of failure



# Basic Skills the New Worker Should Have

**Reading:** Successful applicants for the vast majority of jobs must be able to read, understand what they are reading, and apply this understanding.

**Math:** Workers need to be able to do basic math, including word problems.

**Writing:** The demand for workers who can write clearly has increased in almost every occupation. Writing clearly includes using correct spelling and grammar in order to convey ideas to coworkers, clients, and customers.

**Speaking:** The ability to convey one's meaning clearly is vital to successful oral communication in both formal and informal contexts.

**Computer Literacy:** Computer literacy includes knowing how computers operate and what they can do; familiarity with word processing, spreadsheet, and database software; carrying out basic hardware-related tasks; and recognizing the difference between operator error and computer-caused problems.

**Reasoning, Problem-solving, and Decision-making:** Successful problem-solving and decision-making require using logic to solve problems and make decisions based on an understanding of how and why things work the way they do.

**Understanding the Broader Picture:** In order to make intelligent decisions, employees need to understand how their work fits into the wider picture and contributes to the broader aims and goals of the organization.

*In addition to these basic skills, employers are looking for a number of personal qualities.*

**A Good Work Ethic:** To employers, a good work ethic means good attendance, promptness, the flexibility to meet employers' changing requirements, having a positive attitude, and, making an effort to do the job thoroughly and well.

**A Positive Attitude:** The positive attitude employers want includes cooperativeness, taking direction and correction willingly, eagerness to learn, being pleasant and polite, and, in particular, getting along with others.

**Independence and Initiative:** Showing independence and initiative means working without the need for constant supervision—finding things to do on one's own, making suggestions, and being interested in making things work better.

**Self-presentation:** Self-presentation means making a good impression—wearing appropriate clothes, speaking well, and being courteous and professional.



# 7 Rules of the Working World

Changing technology and the vast change in economic conditions have altered the complexion of workforce expectations. Additionally, in the aftermath of downsizing and layoffs, thousands of workers have been thrust into the unenviable position of searching for a new job. Whether we are searching for our very first job, changing jobs, seeking to keep the job we have, or trying to earn a promotion, the same set of guidelines apply. While skill and experience are primary qualifications, our ability to adapt to change, to hone our skills, and to work as members of a team will enhance our ability to obtain and retain employment. The seven rules, listed below, are largely supported by feedback from employers. The rules describe the essential characteristics of valuable employees.

## 1. Jack/Jill of All Trades

The most employable worker is the multi-skilled, versatile worker. Gaining a general knowledge of other work areas in the business leads to better decision-making and high productivity. It also markets you for a variety of positions and responsibilities that will advance your career.

## 2. Get an Edge, Keep It Sharp

Identify what you do best and continuously strive to improve upon and upgrade your skills, particularly in the area of technology.

## 3. There's No "I" in Team

Today's workforce is not a battle of "everyone for himself." It is a partnership of employees who can interact with each other and apply their individual strengths for the good of all.

## 4. Born to be Wired

There is no substitute for computer and technology skills. Your ability to understand and adjust to changes in technology will be critical in keeping pace with occupational shifts that inevitably occur.

## 5. Watch Your Language!

Communication is a cornerstone of good business and employee relationships. The ability to express oneself clearly and precisely is one of the skills employers value the most. The best way to improve this skill is by thinking before you speak.

## 6. May I Help You?

The ability to maintain good customer relations is not only good for business, it is one of the most sought-after skills in any business. This also applies to treatment of co-workers; a kind word or offer of assistance is invaluable.



## 7. Networking Works

You will always benefit from building a rapport with people both inside and outside the workplace. This truly is a small world, and there is no doubt that your connections will be good for business as well as your own career goals.

